

## DEFT Issues to Management

Does Management agree with the concept of a 2,000 cfs connection from Sacramento River at Hood to the Mokelumne River?

A well designed and researched 2,000 cfs ( plus bypass flows back to the river) screening module research facility at Hood would be used to test the following:

- The bypass system to the Sacramento River. (Predation issues, pumps, outlets location and types etc.)
- The screen cleaning and debris management systems
- Upstream passage facilities ( salmon, Steelhead, delta smelt, striped bass, sturgeon, American shad)
- Other testing include trash racks, screening velocities, screen material and orientation.
- Forebay hydraulics and predation

Potential benefits?

- Will be used to enhance fisheries and water quality.
- Will provide valuable information if we have to eventually move towards a dual system.

What is the risk?

- Staging a facility may not demonstrate the ultimate impacts of the facilities.
- May raise more questions than we answer
- May show negative impacts
- May be perceived as start of Alt 2 or 3

Is ISDP part of any through DELTA Alternative?

Ag barriers

- DEFT recommends against the Ag barriers.
- Does management feel its open to other methods to achieve same results.

Old River Dredging

- DEFT has not fully considered.
- Does management see as part of ISDP?

Fish Screening Facilities in south Delta.

### **2,500 cfs Research Production Facility at Tracy**

Construct by the year 2,000 a research fish screening and handling facility at Tracy that can eventually become a production facility. The facility would consist of a 2,500 cfs module "V" type screen that could be replicated in the south Delta. Use this facility to conduct research on components and programs that would lead more efficient designs in the south Delta (such as trash racks, screening velocities, bypasses, screen material and orientation, fish handling and sorting, debris management, cleaning, transportation, etc.) The facility would be designed for 0.2 fps approach velocity with capability to increase to 0.4 fps a certain periods, and eventually may screen the full 4,600 cfs pumping capacity at Tracy. This is in fundamental conflict with the fish agency criteria and the concept of not limiting exports by the screening criteria. The alternative needs to provide for the option of continuing to take some water through the existing louvers.

### **6,000 cfs Screen at the head end of CCF**

Construct a 6,000 cfs fish screening and handling facility at the head end of CCF. There are two primary options for management to consider:

- Design the screens and low head pumping facilities to screen 6,000 cfs at 0.2 cfs approach velocity. For pumping above 6,000 cfs use a combination of the screens and the existing intake gates. Operate both the salvage facilities at the new screens and at Skinner.
- Design the screens with the capability to operate at 0.2 to 0.4 fps approach velocity and the low head pump station at 10,300 cfs. To achieve the 10,300 cfs capacity through the new screens at particular times, the approach velocity would be increased to accommodate the total flow (approach velocity around .33 cfs).

DEFT recommends that the facility be designed not to preclude either option and to continue with the research at UC Davis Tread Mill and the Research work at Tracy to help guide the use of flexible criteria.

**Does management support the idea of flexible approach velocities in the future given the 0.4 fps is outside the present F&G criteria?**

**What information does management need from DEFT to decide the balance between fish protection, water supply, and water quality?**

**What alternative should DEFT be comparing an alternative scenario to? (No action, alt 1, 2)**

### **Additional Points to be made to Management**

#### **Protection Measures**

DEFT will conduct a sensitivity analysis on the various protection measures that deal with ops, structures and habitat. A prioritized list will be presented to management.

Need to explain both parts of the VAMP proposal 1) New supply needed 2) Curtailments in pumping.

#### **Habitat**

DEFT has made recommendations for Stage 1 Habitat actions.

- For full buildout evaluation should we use ERP, Core team, or strategic plan?
- DEFT has basic scientific disagreement on in-Delta habitat benefits for species. In other words, the degree of benefit is uncertain especially for estuarine and tidal habitat.

#### **Water Quality**

Water quality team gives DEFT actions that move us towards improved water quality. DEFT needs results from specific actions to evaluate if there is improvement for fish, especially those actions dealing with toxics.